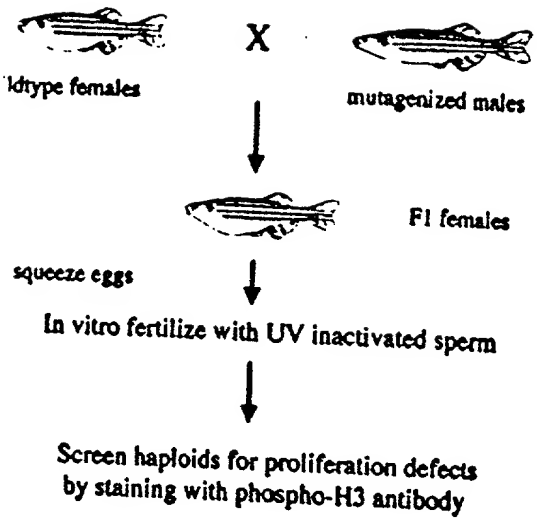
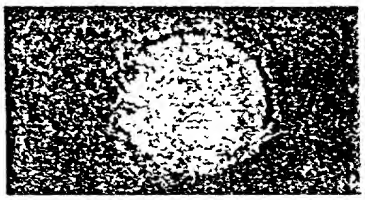

X
ldtype females
mutagenized males
F1 females
squeeze eggs
In vitro fertilize with UV inactivated sperm
Screen haploids for proliferation defects
by staining with phospho-H3 antibody

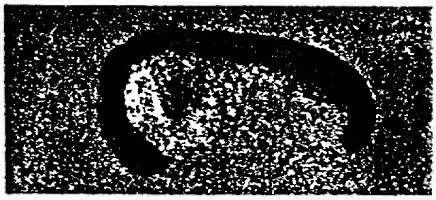
Figure 1

2(A)



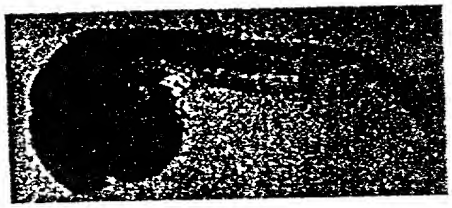
12 hpf

2(B)



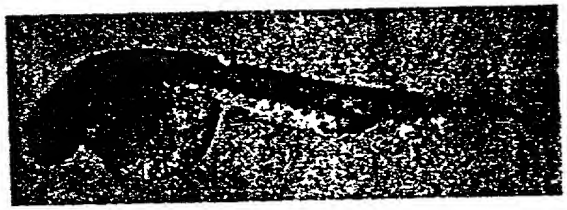
16 hpf

2(C)



24 hpf

2(D)



48 hpf

Figure 2 (A)-(D)

3(A)

H3 Antibody 24h

3(B)

ıpf Acridine Orange

Figure 3 (A)-(B)

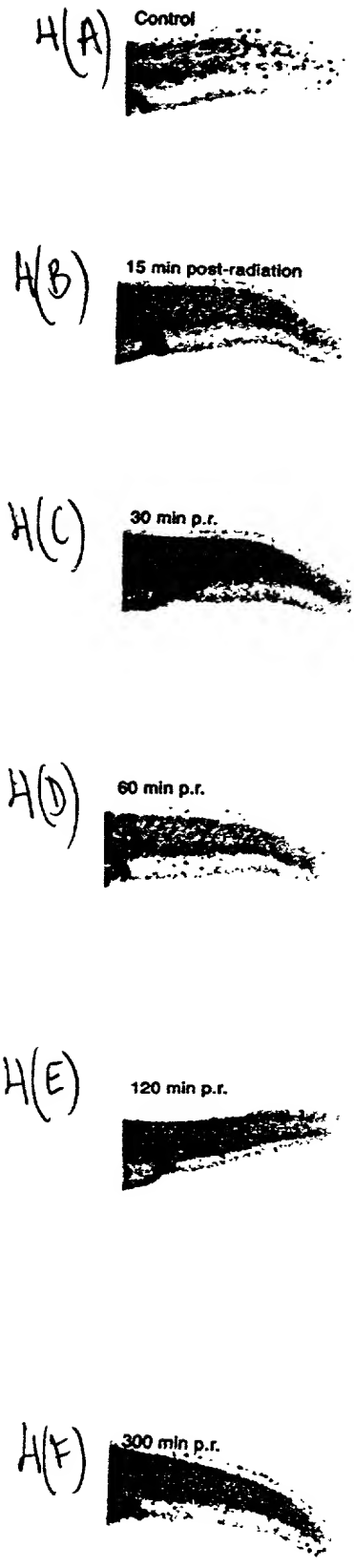
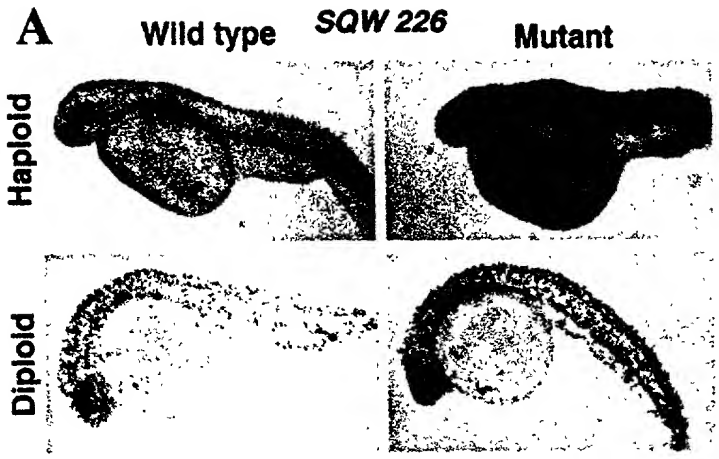
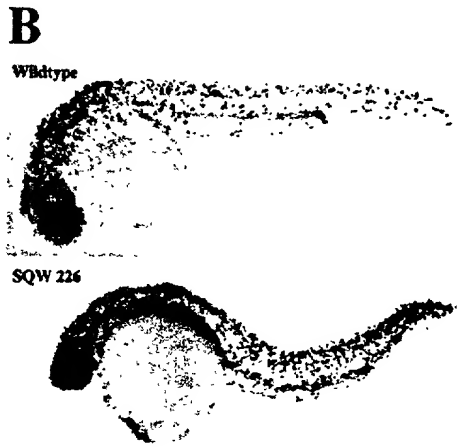

H(A)
Control
H(B)
15 min post-radiation
H(C)
30 min p.r.
H(D)
60 min p.r.
H(E)
120 min p.r.
H(F)
300 min p.r.

Figure 4 (A)-(F)

5



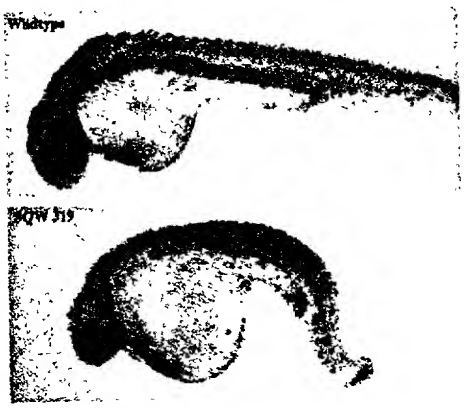
5



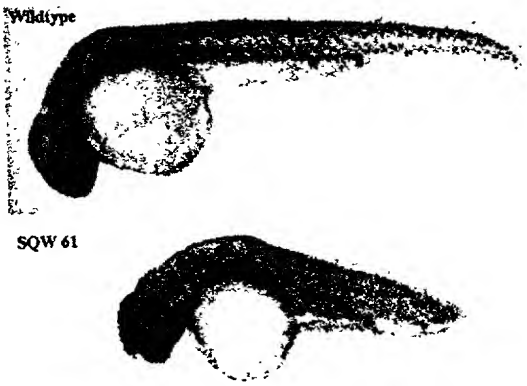
5

Figure 5 (A)-(C)

5 D



5 E



5 F

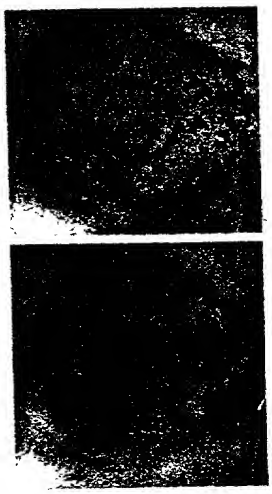
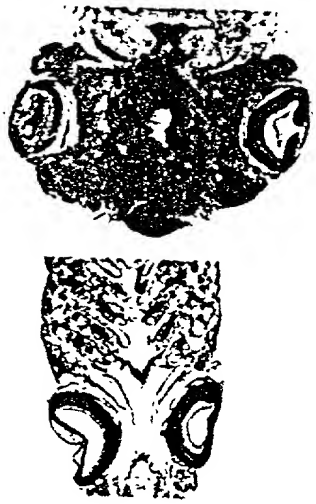


Figure 5 (D)-(F)

6

A



6

B

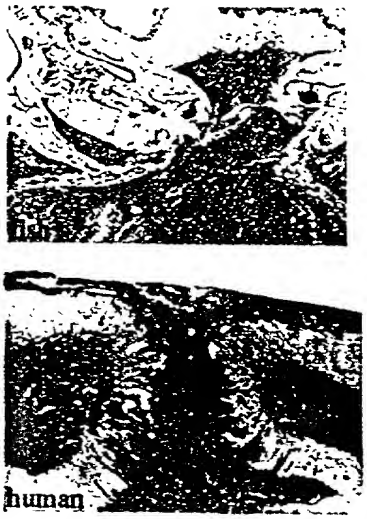
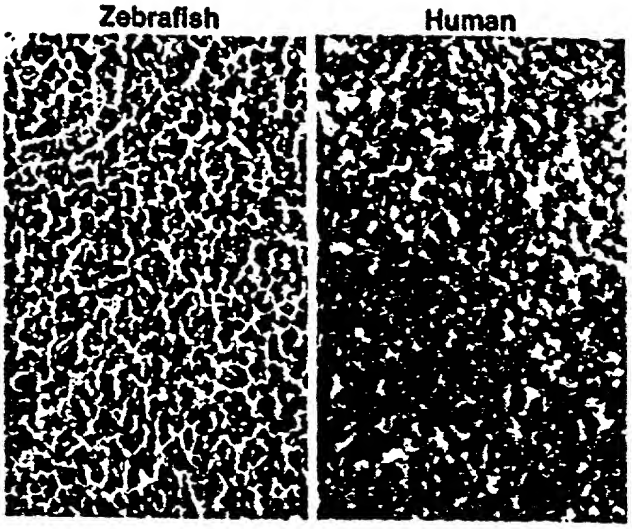


Figure 6 (A)-(B)

6 C



6 D

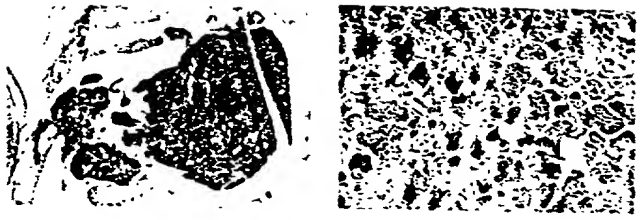


Figure 6 (C)-(D)

6 E

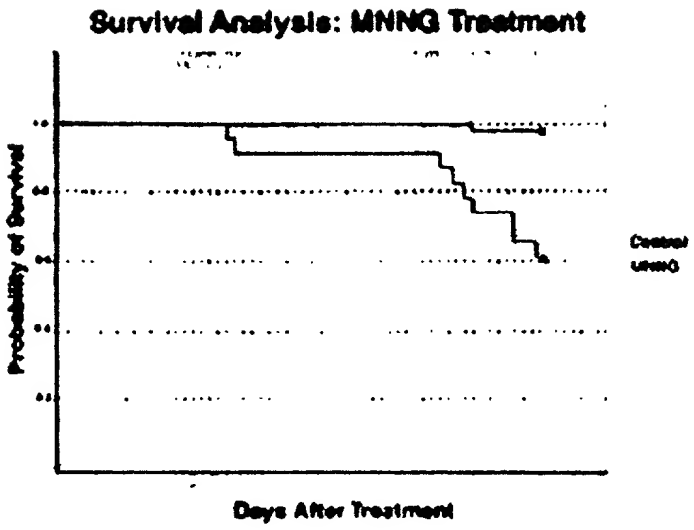
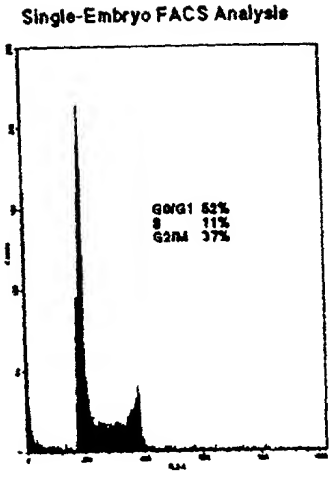

Survival Analysis: MNNG Treatment
Probability of Survival
Days After Treatment

Figure 6 (E)

7 A



7 B

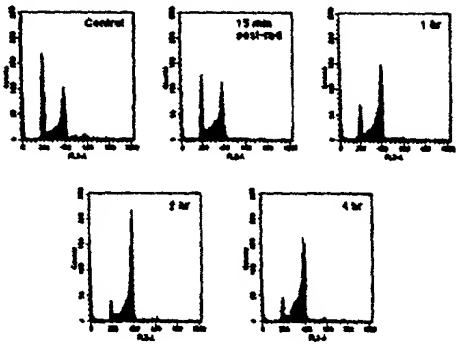


Figure 7 (A)-(B)

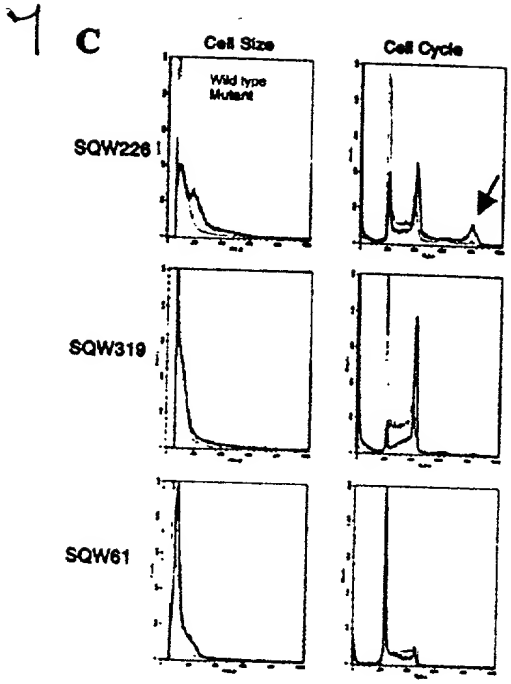
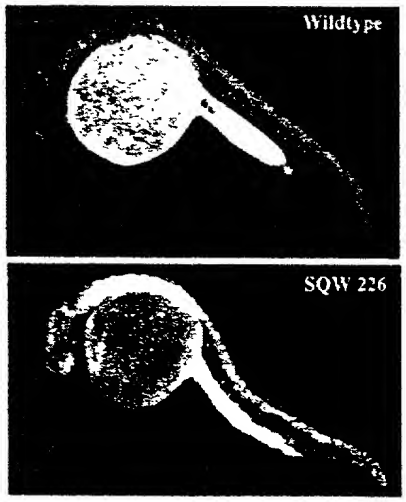


Figure 7 (C)

8 A



8 B

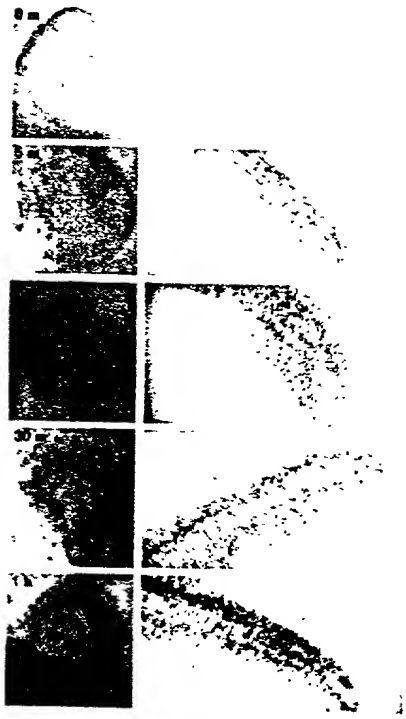


Figure 8 (A)-(B)

C

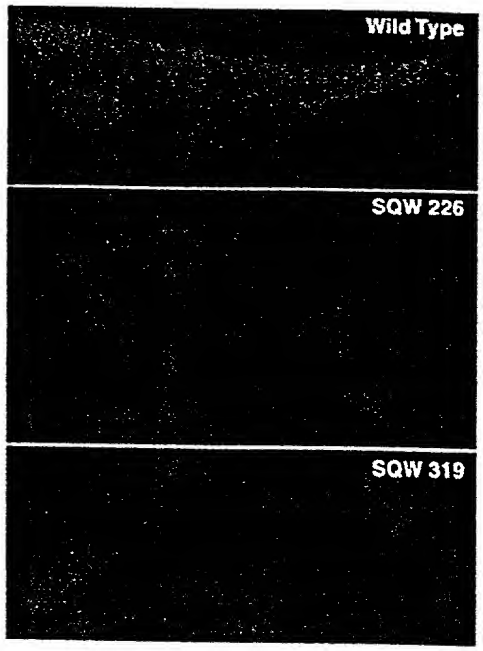


Figure 8 (C)

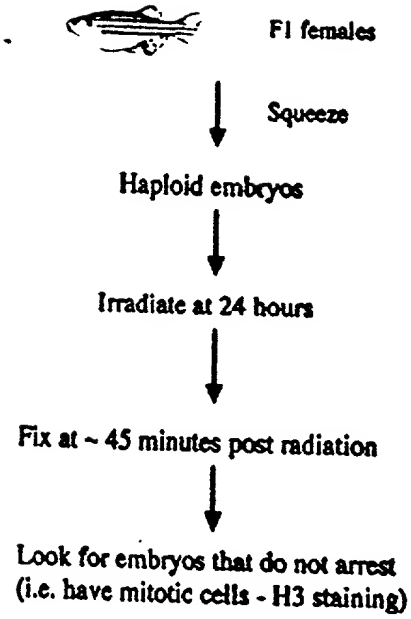

F1 females
Squeeze
Haploid embryos
Irradiate at 24 hours
Fix at ~ 45 minutes post radiation
Look for embryos that do not arrest
(i.e. have mitotic cells - H3 staining)

Figure 9

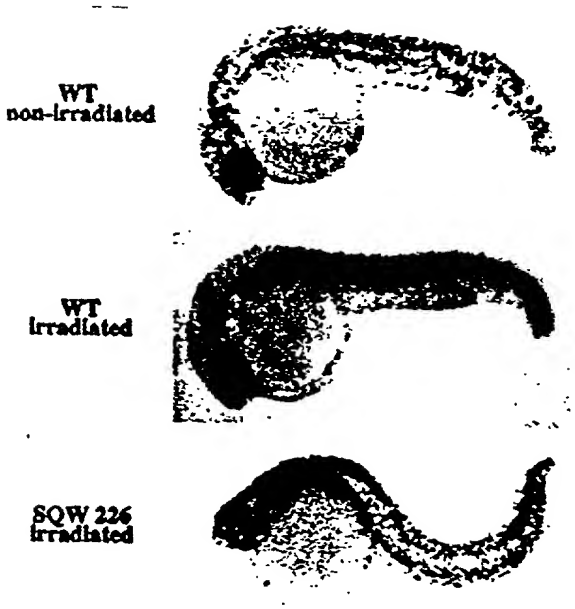


Figure 10

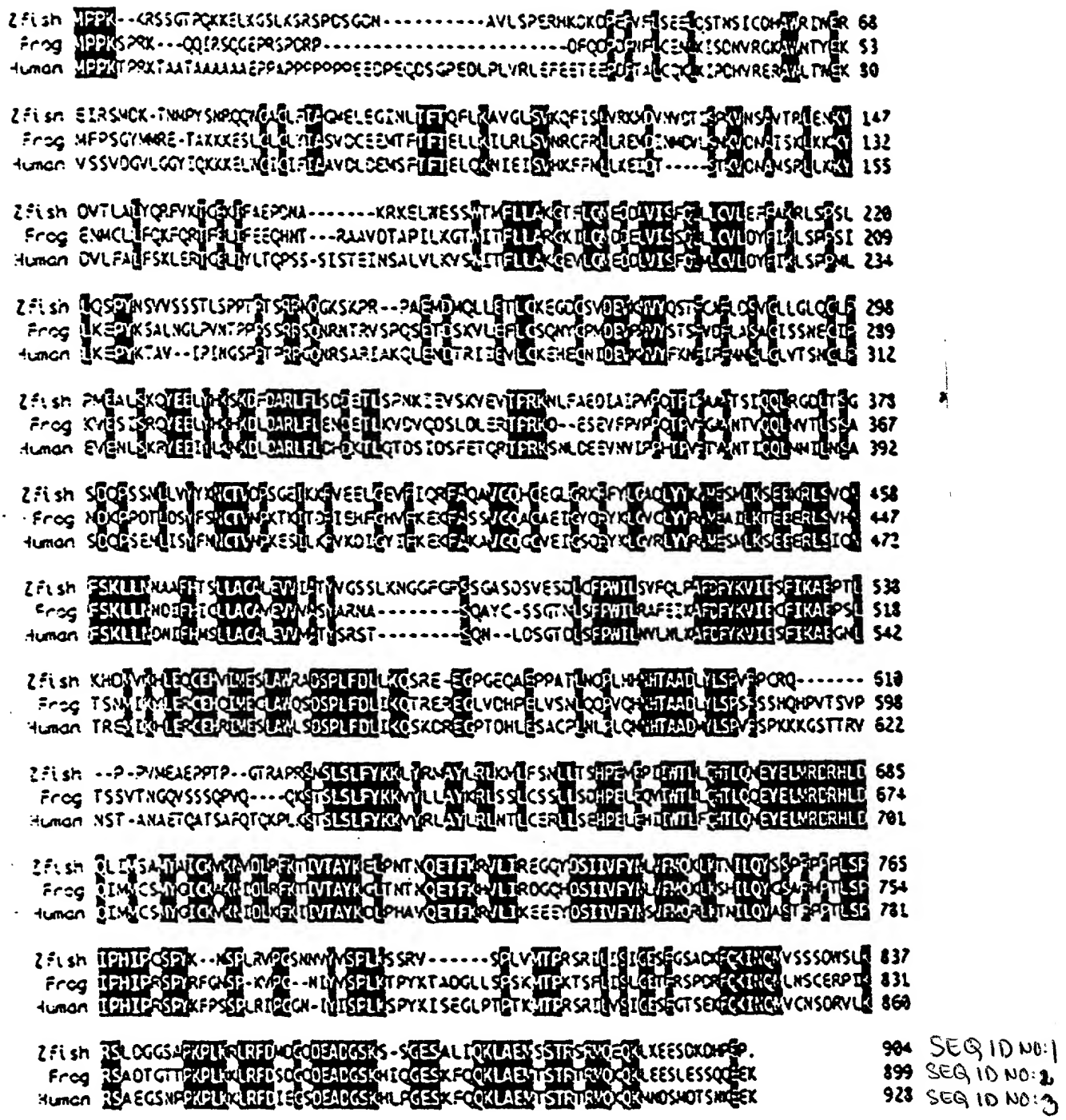


Figure 11

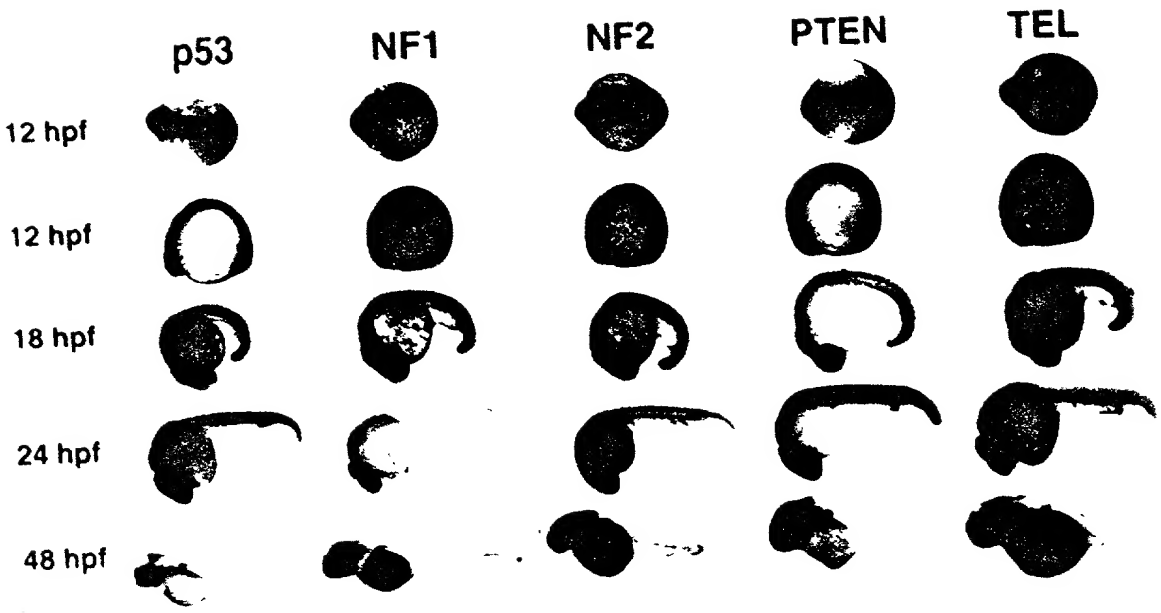


Figure 12

13A

13B

13C

Figure 13 (A)-(C)

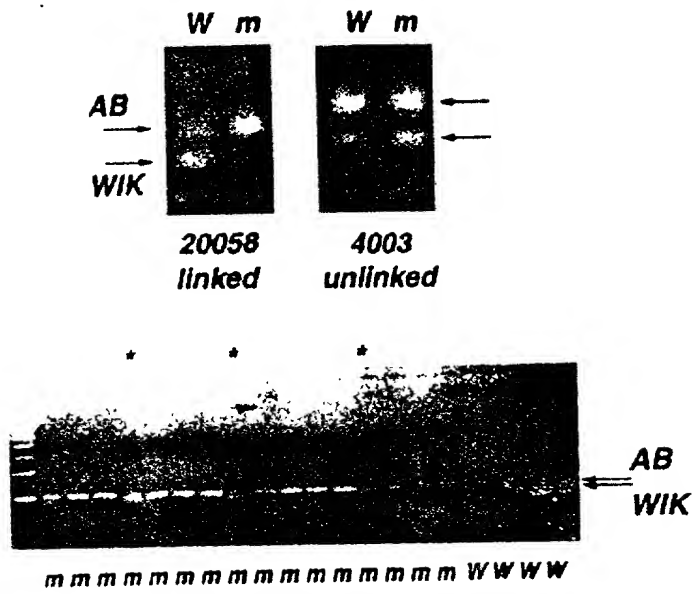

W m
W m
AB
WIK
20058
linked
4003
unlinked
AB
WIK
m m m m m m m m m m m m m m m m W W W W

Figure 14

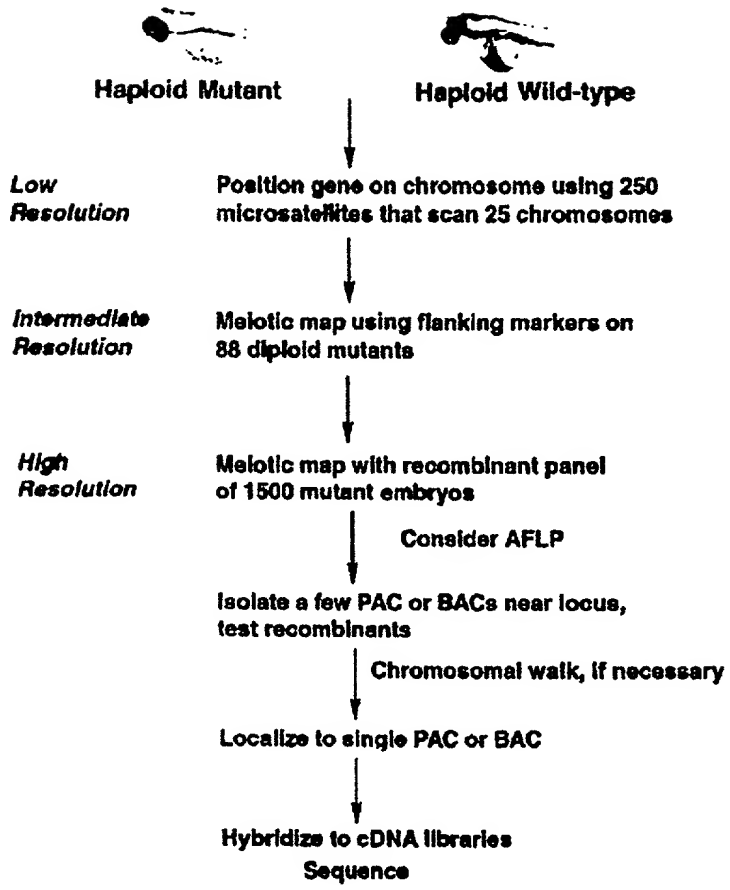
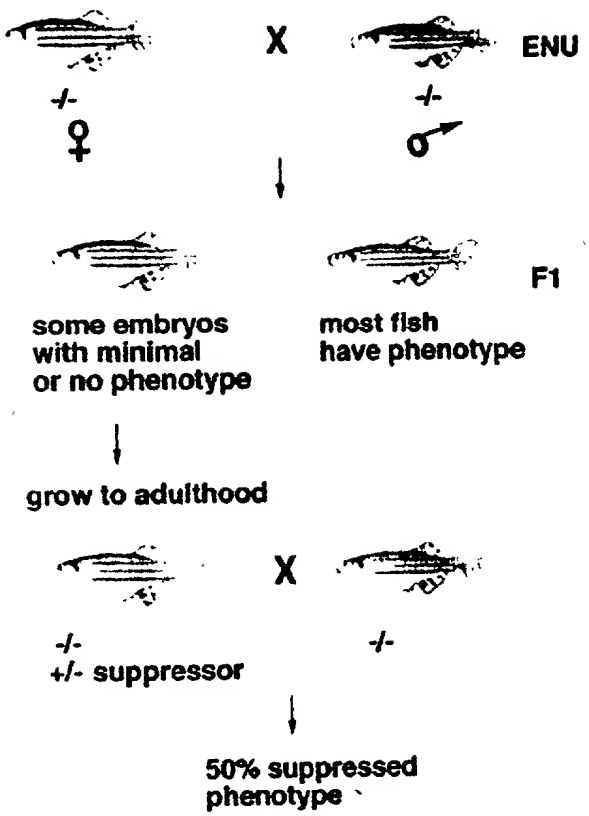
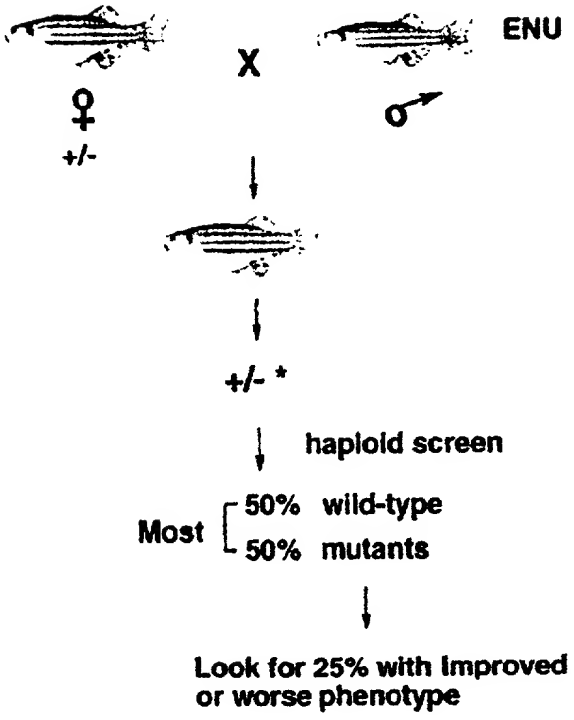

Haploid Mutant
Haploid Wild-type
Low Resolution
Position gene on chromosome using 250 microsatellites that scan 25 chromosomes
Intermediate Resolution
Meiotic map using flanking markers on 88 diploid mutants
High Resolution
Meiotic map with recombinant panel of 1500 mutant embryos
Consider AFLP
Isolate a few PAC or BACs near locus, test recombinants
Chromosomal walk, if necessary
Localize to single PAC or BAC
Hybridize to cDNA libraries
Sequence

Figure 15

16 A

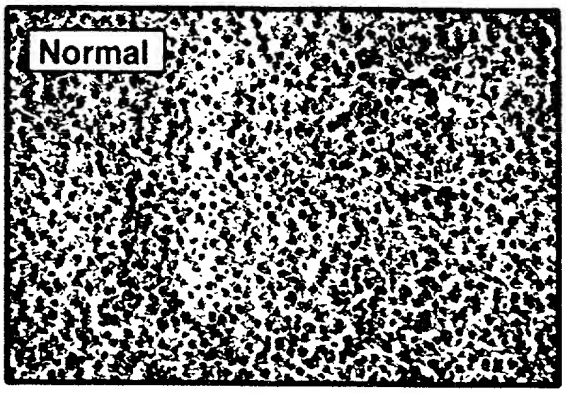


16 B

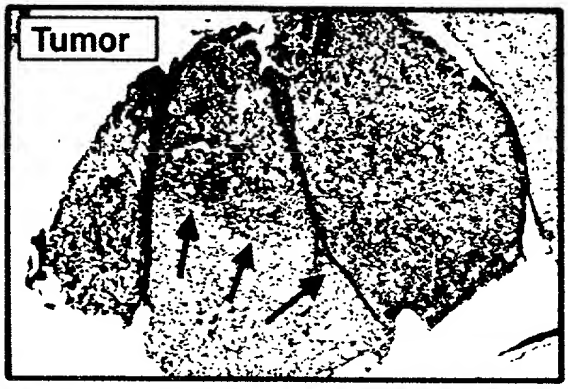


Figures 16 (A)-(B)

17 A



17 B



17 C

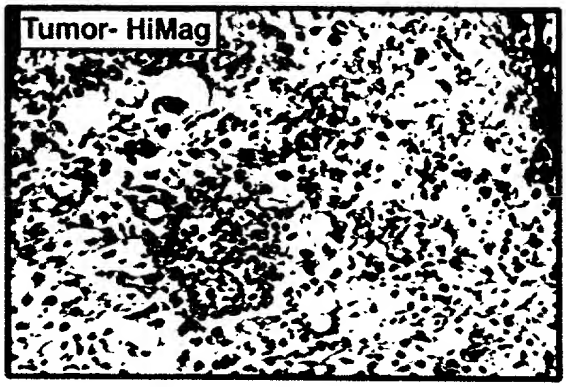
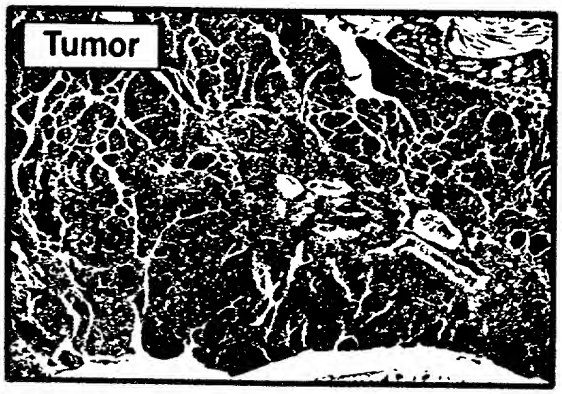


Figure 17 (A)-(C)

18 A

18 B



18 C

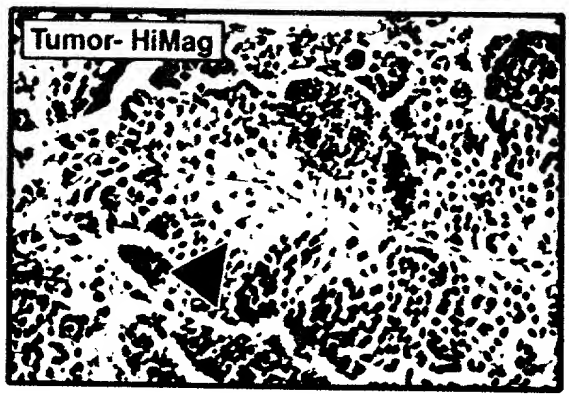
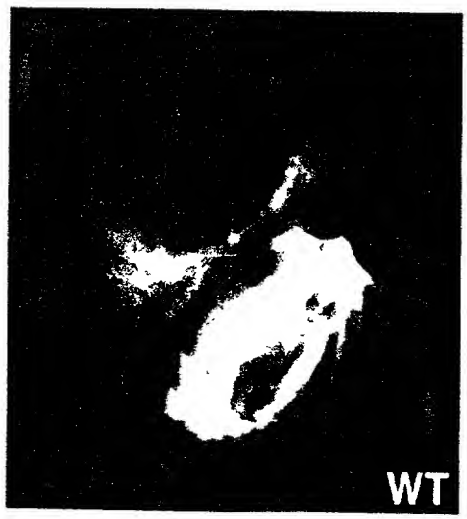
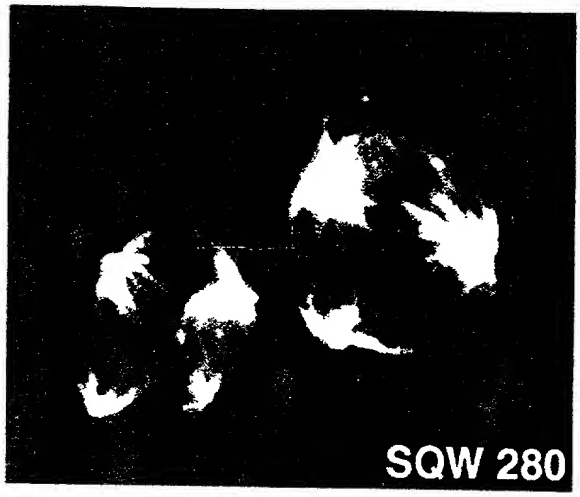


Figure 18 (A)-(C)

19 A



19 B



19 C

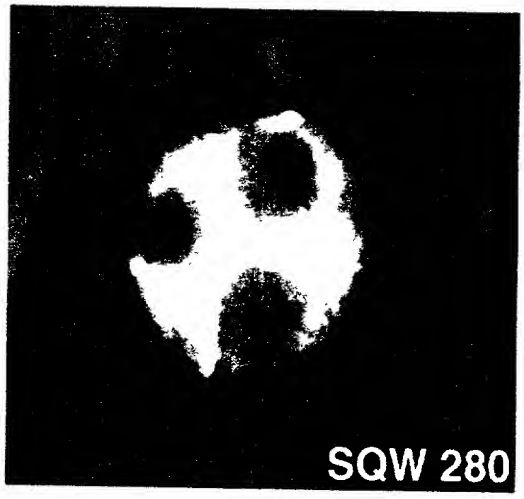


Figure 19 (A)-(C)

19 **D**

19 **E**

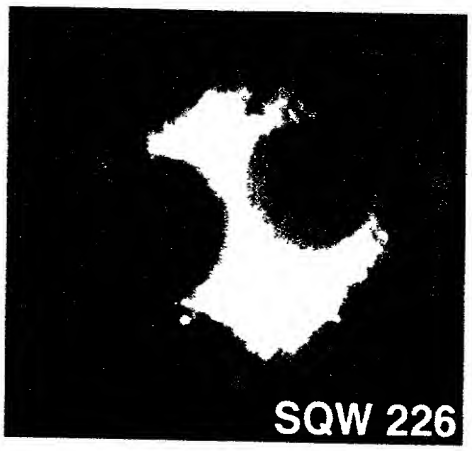
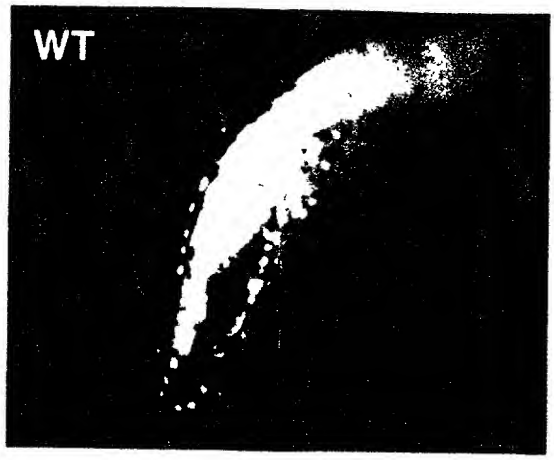


Figure 19 (D)-(E)

20 A

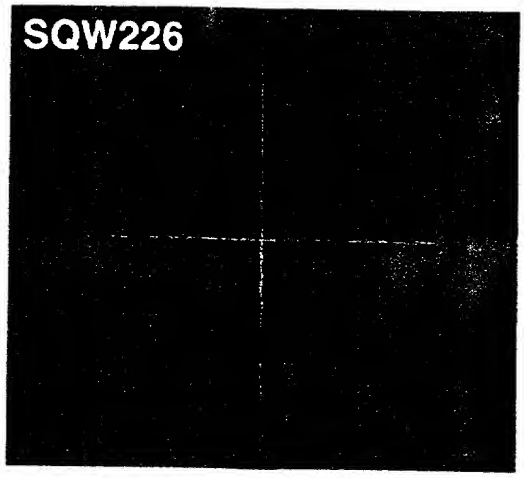


20 B

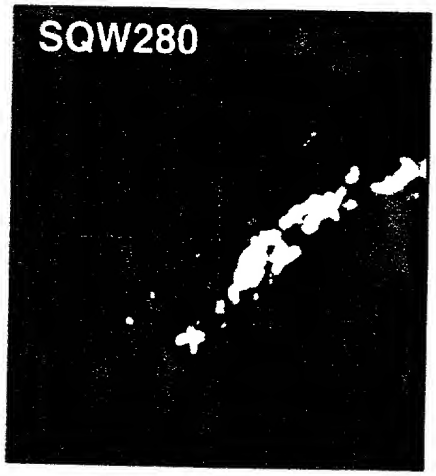
20 C

Figure 20 (A)-(C)

20 D



20 E



20 F

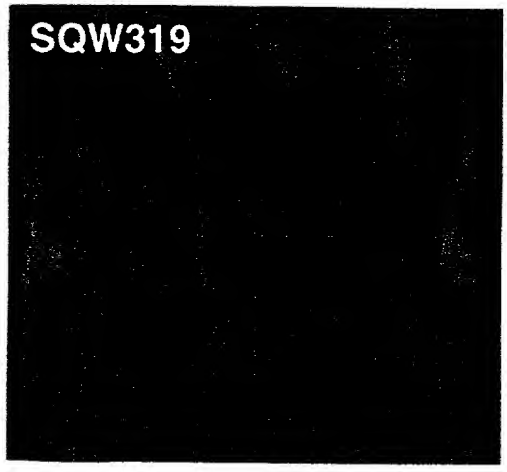
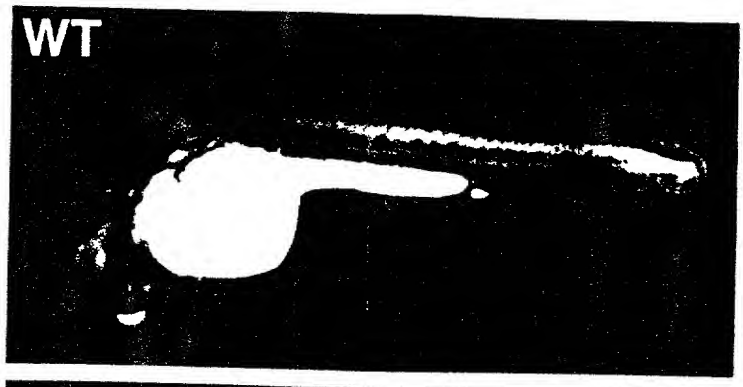
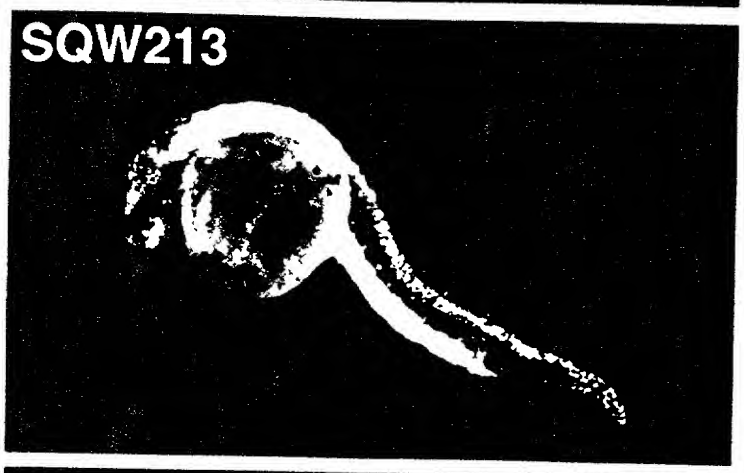


Figure 20 (D)-(F)

21 A



21 B



21 C

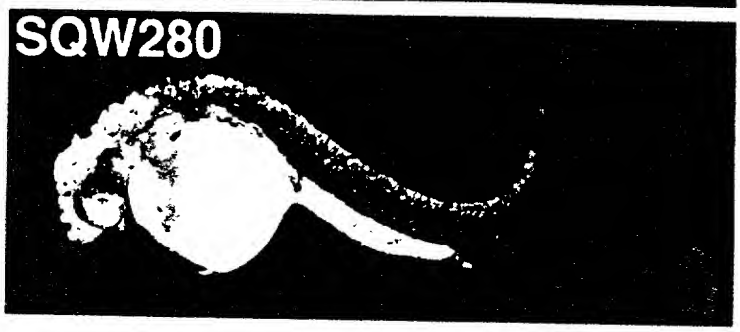
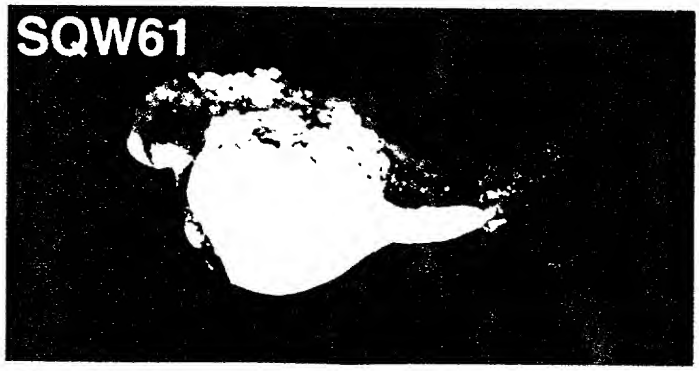
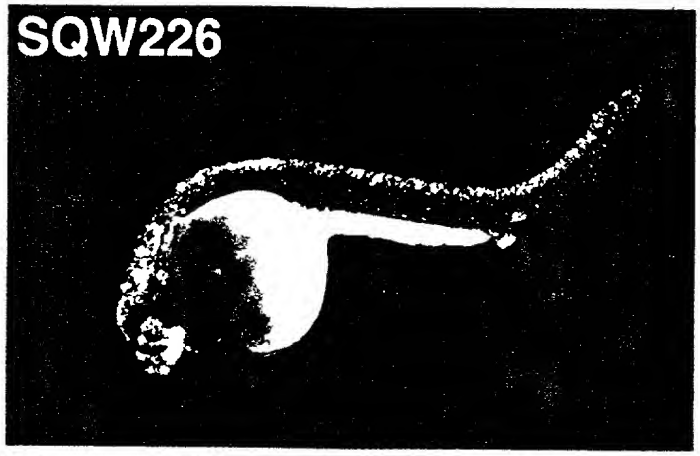


Figure 21 (A)-(C)

21 D



21 E



21 F

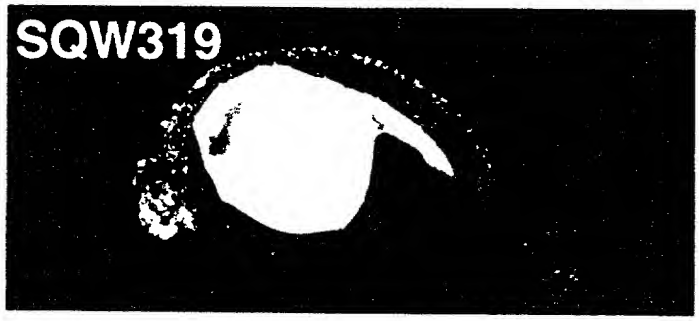


Figure 21 (D)-(F)